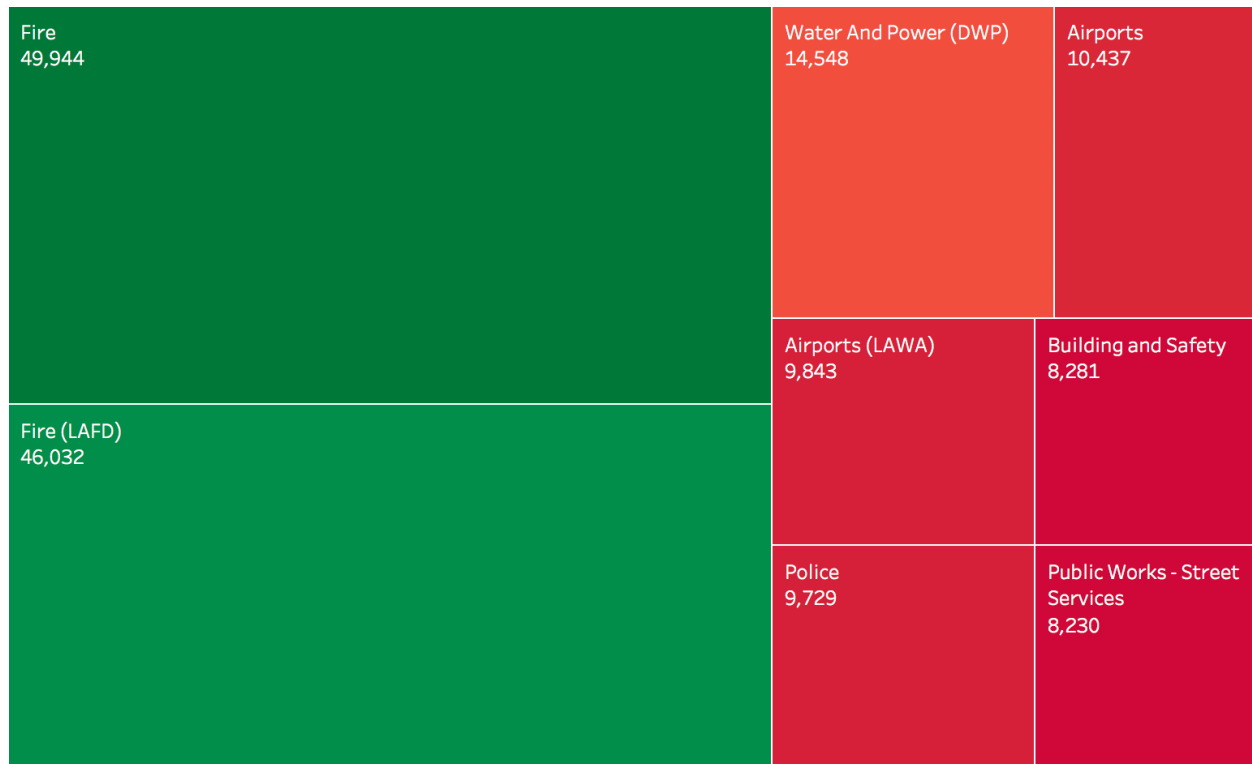


UCLA Anderson | City of LA Datathon Sponsored by Accenture

Recommendation report - Team 6

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After cleaning the dataset of the payroll data from 2013 to 2017, we can get a chart with the correlation between “Overtime pay” and the “Department”.



(The number indicated in the picture is the average number of overtime payment in US Dollars.)

We dug deeper into the overtime pay and the department, and came up with the following recommendation for the City of LA in order to minimize the overtime payment, and on the other hand increase the efficiency in the system.

We first put all the departments into two big categories. One category is for the departments like Police & Fire, which most of the overtime jobs are related to unpredictable crimes or accidents. The other category is the departments with regular working time schedules, just like regular officers in most companies.

Our suggestion for the first department category such as the Fire & Police is to do an optimization test on current shift schedules, analyzing the different shifts, and finding those are more likely to have incidents within the time period. Then we can schedule the officers' shifts according to the optimized shift schedule.

Our second suggestion for the second category of the the departments, which involve more “Office work”, is about implementing the policy of “Overtime in the morning!”.

Basically, by implementing the “Overtime in the morning! ” policy, we can expect that the total payment for the overtime will decrease, so that the efficiency of the employees’ output at work will increase.

We suggest that the City of LA first set a proper time to cut the overtime. For example, having lights out at 7 pm, and no overtime office work after 7 pm. Instead, we courage the employees to work overtime in the morning from 7 am to 9 am.

The cons for overtime at night are as follows:

1. There’s no time limit for working overtime at night.
There’s usually not a specific end time for the employees to work overtime. Since the employees can not have a time table when are they going to finish work, most of the employees tend to stack up their tasks to the night. (Since they are going to work overtime anyway.)
2. Employees normally get overtime payment for dinner.
Normally, when an employee does an overtime, most of the cases, they will go out to have dinner first, and then come back finishing their job. This kind of situations strongly effects the efficiency in the system.

The pros for overtime in the morning are as follows:

1. The time table for work is clear and specific.
Since there is no work overtime allowed after 7 pm, the employees will have to finish their work between 7 am and 7pm at most. This clear schedule will not only increase the efficiency of the employees’ output.
2. The employees are able to stay focused at the morning overtime period.
During the morning overtime period from 7 am to 9 am, the employees will be less distracted by the phone calls, the clients, and the coworkers. This will increase the working efficiency comparing to working overtime at night.
3. The monthly electricity bill will decrease as well.
The policy makes a rule of no work overtime after 7 pm. Moving the overtime from night to morning will also reduce the cost on the electricity related bills.

While looking into the dataset, we recognize that a lot of data from the department of Water and Power are missing. Therefore, we highly suggest that this department could check with their data system, and maybe hire four more data scientist/ analysts from UCLA Anderson Master of Science in Business Analytics.